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SUNDAY, OCTOBER 20, 1901.

## WORLD'S-1903-FAIR

GOOD INSURANCE.

Although the naval estimates for the year ending June 30, 1903, reach a total of \$98,910,984, exceeding those of the current fiscal year by almost \$22,000. 66; there will probably be no disposition on the part of the American people to begrudge the contemplated expendi-

it is felt that these estimates represent the justified improvement and maintenance of the navy and that the ne ney thus spent will be a wise invest-

linee the war with Spain was virtually fought and won by the navy the public sentiment in favor of the adequite development of American sea power has been vastly strengthened.

There is a firm conviction in American minds that it will be well worth while to place and thereafter keep the American navy in a commanding position worthy of the Government which it reprecents and of the interests which it must necessarily protect.

It is reasonable to suppose, therefore, that Secretary Long's estimates for next year's expenditures on the navy will be dily approved and the consequent appropriation made at the proper time. There is no disposition to "skimp" when it comes to making adequate financial provision for our navy. An ample support of the American sea power is good American insurance.

IT'S A GOOD SIGN.

Mark Twain's appearance as a political speaker in the New York City campaign of the reform elements against Tammany may at least be taken as encouraging the belief that the inactive element of American citizenship is beginning to realize the necessity of performing civic duties long neglected.

There would never be any necessity for reform movements to overthrow a boss and to smash an evil machine if the respectable element of municipal population did its duty. It would be impossible for the professional spoilsman to reach a place of power under such conditions. Decent men, not thieves who have adopted the profession of politics because of its superior opportunities for thievery, would be

ed to office. participation in municipal government the questions to be voted upon next would serve their city. Thugs and crime-partnered boodlers would be relegated to the rear.

It will be a fine thing when the men of American cities fully realize these truths and act consistently upon them. They have the power in their own hands to secure and maintain good government. They voluntarily surrender that power into the hands of the most evil and malign class of municipal popuintion. It is surely time that such folly should cease.

## NONPROFESSIONAL.

Lovers of clean scholastic sports have been encouraged by the measures which have been taken by Western universities to abolish professionalism. For a while the games may not be quite up to the mark of former years in speed, but there will be a great advance in the tone of the contests.

It is always a temptation to small institutions of learning to bring their teams nearer the level of larger schools by resorting to subterfuges that are nothing less than hiring men of extraordinary ability as representatives. In one university not more than a thounni contributed to the funds which and for the support of these profes-

Perhaps they won their games, yet this competition among schools has worked harm. Men of unusual football drength raised their sale-price to figures that was practically ruinous to the small school. The teams could not be considered representative. Athletic boards became little less than business managers whose chief concern was to see that no deficit confronted their associa-

tions at the end of senson. There seems to have been a change this fall. At Washington University a movement is on foot whereby it is hoped to not only abolish the necessity of charging admission fees to football games, but to endow athletics. It is claimed that professionalism has been abolished and there is every evidence that this has been done. Other St. Louis schools have taken practically the same

stand. Formerly one of the worst transgres sors was Kansas University, a school that has usually managed to have a good football eleven on the gridiron. In past years a liberal fund has kept good football players in school until after the Phanksgiving game, when they returned to their ordinary vocations with an in-

ensed roll of money. Tet this university has furnished a most gratifying example of the changed conditions. In a game with the Kirksille team Kansas played a "ringer." The faculty in Lawrence promptly took up the matter, called for the resignation the athletic director who was reble for the breach and denounced action. Upon reconsideration, the contonal was dismissed and those erned in the matter were consured

after they had promised to make no plain, have no ornaments, no music,

more mistakes of the sort. trouble over the matter, but the faculty has stood firm. Hereafter the public may be assured of a representative team from the State school. It is an improvement all around.

ANOTHER VIEWPOINT.

Mr. Robert E. McMath, former president of the Board of Public Improvements and thoroughly posted as to the needs of St. Louis, has taken no unexpected action when he announces his friendship for the Charter amendments. His services on the board, which is brought into daily contact with the problems dealing with sewer and street reconstruction, make him entirely competent to pass a favorable judgment upon the proposed changes.

At present the Board of Public Improvements is handicapped in its work both by a recognition of the injustice which the Charter imposes on the tax payer and by the restrictions of the Charter. The uniform high character of the board has saved the property owner money at the expense of the city's general appearance.

No member of the board has been anxious to order cross streets paved when he knew that the owners of the corner lots would have to pay immediately for the improvements on a frontfoot basis. Often this meant practical confiscation of property. In the district swept by the tornado even the construction of streets in the middle of a block often worked hardship on the property owners. It was natural that the Board of Public Improvements was averse to introducing ordinances providing for sewer and street improvements under such conditions.

That difficulty is practically removed in the amendments by a lowering of the penalty rate on special tax bills from 15 to 8 per cent. No man able to own property will be forced to encumber himself in order to pay for improvements. Instead of paying tax bills immediately upon presentation by the contractor, he will have from three to seven years in which to settle the obligation. On deferred payments, the interest rate is only 6 per cent.

In the past the Board of Public Improvements has often been hindered in its work by the holding up of bills in either the Council or the House of Delegates. Especially is this practice common when a Combine exists in either body. The board has no means of finding what will be the final disposition of bills through the pigeonholing methods of cliques.

After the adoption of the amendments every bill introduced from the Board of Public Improvements will either be accepted or rejected within forty days. At the expiration of that time action of some sort will have to be taken. In by the educational exhibit of the World's other words the board will know just what to depend upon.

So it is perfectly in harmony with his experience in the board that former President McMath should be so heartly in favor of the amendments. He knows that they will relieve the property owner from a burden that is sometim irksome, and will save the Board of Public Improvements from embarrassing positions made necessary by the present restrictions of the organic law.

## SPURIOUS.

There seems to be no limit to which the anonymous enemies of the Charter ts will not go in their effor Then, from something like a reproach, to create a false impression regarding would become an honor. Good citizens Tuesday. Fighting in the dark, they are compelled to use methods that are despised of all men.

It is natural and right that the secre tary of the Workingmen's Protective League of Missouri takes umbrage at the misuse of envelopes bearing the name of the organization in order to make voters believe that the league is fighting the proposed changes. In a statement on the subject he correctly brands such efforts as an outrage.

Yet that is the character of the fight that is being made on the amendments. For the most part the statements in such circulars are a fabric of misstatements from beginning to end. Persons are misquoted and the amendments misconstrued. As The Republic has repeatedly urged, any man who has doubts about any amendment can do no better than to secure a copy and read at first hand the exact words of the provisions which St. Louis will either accept or reject next Tuesday.

# GOTHENBURG SYSTEM.

No one has suggested that wide-open saloons tend to decrease the criminal records of the courts. On the contrary, St. Louis has had an example of what sand miles from St. Louis even the the early closing of dramshops can accomplish. The police officials state that since the regulation went into effect many forms of crime have been reduced as much as one-half or three-fourths in number.

In connection with this assertion, a short review of the Gothenburg system in Sweden, by William E. Curtis of the Chicago Record-Herald, is of interest. In the five years preceding the adoption of the system in that country the average number of arrests was 13.22 to 1.000 inhabitants, while in the past five years the number has fallen to 6.31 per 1,000. The amount of liquor consumed has decreased from forty-five quarts per capita in 1850 to eight quarts in 1898. How has this been accomplished? The beginning was in 1865 when the Town Council of Gothenburg delegated to a company of twenty prominent citizens a monopoly of the liquor traffic. They were to furnish the capital. All profits over 6 per cent were to be turned into the public treasury. The management,

scheme, has been prudent and skillful. The sale of liquor in the fourteen agencies of Gothenburg, a city of 113. 000 population, is stopped at 6 o'clock on Saturdays and days preceding bolidays. No liquor is sold on Sunday. On other days the agencies are open from 8 in the morning until 8 at night in summer and 7 o'clock in the winter. Minors and women are barred. Only one drink can be sold to a person. If the bartender thinks that the customer is in danger of becoming drunk or is already intoxicated, he may refuse to sell and the would-be buyer has no re-

fortunately for the success of the

newspapers, mirrors, pictures or seats. This year's Missouri University eleven | Loading and gossiping are prohibited. is probably weaker than in former years | All sales are for cash. Liquors are because of the faculty's insistence upon guaranteed to be pure. Money borrowed nonprofessionalism. There has been to buy liquor cannot be recovered. The attendants are servants of the State, sworn to obey the statutes.

This system has been adopted in eighty-three out of ninety-two municipalities in Sweden. As the organic law of Sweden permits local option by the votes of the men and taxpaying women, the other nine municipalities are either without liquor or license private dealers. Four Provinces are entirely without saloons. The sale of liquor is generally prohibited in the country districts.

Beer is the common drink of the peo ple and can be obtained anywhere. In the last fifty years the amount consumed has increased from 300,000 hectoliters to 1,000,000, while the population has increased only one-fourth. Yet everywhere there are gain of sobriety and a decrease of crime.

TAKING CHANCES. New York is rejoicing over the settle ment that has been made with the heirs of the late Jacob S. Rogers whereby the Metropolitan Museum will receive the \$6,000,000 which he left by his will to that great institution. According to the attorneys in the case, the contestants compromised on the payment of about \$250,000-a comparatively insignificant sum when the delay that might have

been caused by litigation is considered. And this calls up the old question of equests to public objects. Why is it that rich men so often give their property to these charitable enterprises only when they can make no further use of the surplus income? . In the case of Millionaire Rogers it is said that previous to his death he was not known as a public-spirited man, yet he must have been in intent or he could not have made such a magnificent gift to the Metropolitan Museum.

Christian Brothers' College in this city recently lost a bequest of \$100,000 made by Mr. Benoist of Kansas City through a successful will contest. It is a comparatively easy thing to convince a jury that undue influence has been used to induce a gift for charitable objects. Even the great Tilden properties were turned from the owner's purposes by a litigation that reflected on the ability of the jurist.

Is it not far better to do as have some of the rich men and women of St. Louis? Washington University has been placed on its feet for decades to come through the living generosity of a Cupples, a Brookings and others. The properties given to the university are still productive, so that nothing in values has been lost by their early donation to the school. It is only by the liberality of the living that the magnificent Wash ington University buildings are being completed in time for their occupation Fair.

Andrew Carnegie's principle of giving is coming more and more into vogue. It might almost be said that it is not only a crime for a man to die rich, but, to repeat Fouche's famous remark, "It is worse-it is a blunder." The machinery of the courts is too cumbersome, juries are too risky and relatives are too in considerate for benevolent men to take the chances of bequests being diverted to unexpected uses.

As a cause of street car accidents muddy streets are beginning to take rank with reckless motormen. The publie will be entirely blameless when main-traveled cross streets are paved.

German economists have figured that the Kaiser should drop the tariff war. That was a foregone conclusion. Wars of commercial restriction are necessari

No one will be punished for stealing the body of Gam Lee. This is an unnecessary disgrace which St. Louis should not suffer. Crime must be punished or it will flourish.

Excise Commissioner Seibert has full power to enforce the early-closing regulation. With the aid of the police he can put a stop to the practice of establishing clubs as a subterfuge. Efforts are being made to consolidate

the Hebrew charities of St. Louis. This is putting them on a business basis; something that appeals to every donor Organized labor is not to be bunkoed

into opposing the Charter amendments by misleading circulars bearing bogus union labels and unauthorized stamps.

All reports seem to indicate that Chicago railroad assessments are made upon a basis of 3 per cent. In Missour they are nearly twelve times as much. It has been proved that mule meat is

a Chicago staple. The idea of using swine for street cleaners in that city does not seem so much out of place. Grading on the World's Fair site will begin Monday. Four months from now

the public will be paying admissions to see the progress on the buildings. Every visitor duly enlightened as to the plan and scope of the World's Fair

becomes at once a self-appointed advertiser and boomer of the Fair. Opposition to the Charter amendments is voiced in secret. This is a sure sign that the amendments promise good to

Trust haters need not think that the forthcoming combination of canning companies in Iowa and Nebraska includes beer canning.

the entire community.

a man who intends to vote for the Charter amendments. Now that the World's Fair has entered its constructive period the hammer of the knocker will be silenced by that of the builder.

Whenever your gaze falls upon a loyal

citizen of St. Louis you are looking at

Football players are good enough on the side, but for the real "popular favorite" business the polo player is in the saddle,

When Miss Helen Gould consents to grace the Board of Lady Managers her selection will have been made unanimous.

day, October 22, should by the

# LETTERS FROM A SELF-MADE MERCHANT TO HIS SON.

From John Graham, in Chicago, to his son Pierrepont, at Harvard. Reprinted from the Saturday Evening Post of Philadelphia. These letters are covered by copyright.

THE "LETTERS OF A SELF-MADE MER-CHANT" IN THE SATURDAY EVENING POST HAVE ATTRACTED WIDE FAVOR ON ACCOUNT OF THEIR BROAD GRASP OF BUSINESS AND SOCIAL LIFE, BOUND SENSE AND CLEVER STILE. BY SPECIAL AR-RANGEMENT WITH THE SATURDAY EVEN-ING POST THE REPUBLIC IS ENABLED TO REPUBLISH THESE ARTICLES.

June 1, 189 .- Dear Pierrepont: No, I can't say that I think anything of your postothers from life; both kinds are narrow.

The first are all theory; the second are all practice. It's the fellow who knows enough about practice to test his theories for blow in which a lot of men like these must be clean and sharp as a practice. It's the fellow who knows enough about practice to test his theories for blow is going to eat him up. holes that gives the world a shove ahead, and finds a fair margin of profit in shov-

There's a chance for everything you have learned, from Latin to poetry, in the pack-ing business, though we don't use much poetry except in our street-car ads, and about the only time our products are given Latin names is when the State Board of Health condemns them. But I think you'll find it safe to go short a little on the frills of education; if you want them bad enough you'll find a way to pick them up later, after business hours.

The main thing is to get a start along right lines, and that is what I sent you to college for. I didn't expect you to carry off all the education in sight—I knew you'd leave a little for the next fellow. But I wanted you to form good mental habits, just as I want you to have clean, straight physaround bragging of their ignorance and say-ing that boys don't need to know anything except addition and the "best policy" brand We started in a mighty different world.

we were all ignorant together. The Lord let us in on the ground floor, gave us corner lots, and then started in to improve the adjacent property. We didn't have to know fractions to figure out our profits. Now a merchant needs astronomy to see them, and when he locates them they are out somewhere near the fifth decimal place. There are sixteen ounces to the pound still, but two of them are wrapping paper in a good many stores. And there's just as many chances for a fellow as ever, but they're a little gun shy, and you can't catch them by any such coarse method as putting salt on

Thirty years ago you could take an old muzzle-loader, and knock over plenty of ducks in the city limits, and Chicago wasn't Cook County then, either, You can get "Ye them still, but you've got to go to Kankakee ning.

, and take a hammerless along. And when I started in the packing business it was all straight sailing—no frills—just turning hogs into hog ment—dry-sait for the niggers down South and sugar-cured for the white folks up North. Everything else was sausage, or thrown away. But when we get through with a hog nowadays he's scattered through a hundred different cans and packages, and he's all accounted for. What we used to throw away is our profit. It takes doctors, lawyers, engineers and poets and I con't he's all accounted for. What we used to throw away is our profit. It takes doctors, lawyers, engineers and poets, and I con't know what, to run the business, and I graduate course idea. You're not going to be a poet or a professor, but a packer, and the place to take a post-graduate course for that calling is in the packing-house. Some men learn all they know from books; young man who expects to hold his own

> The first college man I ever hired was old John Durham's son Jim. That was a good many years ago when the house was a much smaller affair. Jim's father had a lot of money till he started out to buck the universe and corner wheat. And the boy took all the fancy courses and trimmings at college. The old man was mighty proud of Jim. Wanted him to be a literary fellow. But old Durham found out what every one learns who gets his ambitions mixed up with No. 2 red-that there's a heap of it lying around loose in the country. The bears did quick work and kept the cash wheat coming in so lively that one settling day half a dozen of us had to get under the market to keep it from going to everlasting

That day made young Jim Durham a candidate for a job. It didn't take him long to decide that the Lord would attend to when he found that I wouldn't have a private secretary at any price, he applied every other position on the premises right down to office boy, I told him I was sorry, but I couldn't do anything for him then, that we were letting men go, but I'd keep him in mind and so on. The fact was that him in mind and so on. The fact was that I didn't think a fellow with Jim's training would be much good, anyhow. But Jim hung on—said he'd taken a fancy to the house, and wanted to work for it. Used to call by about twice a week to find out if anything had turned up.

Finally, after about a month of this, he would be much made to the factory, and then he came into my office with a long story about how we were doing it all wrong. Said we quight to go for the com-

wore me down so that I stopped him one day as he was passing me on the street. I thought I'd find out if he really was so come to us, instead of chasing it up. That was so like Jim that I just make the boy just right, as I had delivered quite the boy just right, as I had delivered quite the boy just wheat to his father myself.

That was so like Jim that I just make a so like Jim that I just make any store at first; besides, that sort of advertising at first; besides, that sort of advertising the boy just right, as I had delivered quite was a pretty new thing then, and I was one of the old-timers that didn't take any stock in the limit is the plugging away at "Hello, Jim," I called. "Do you still want in it. But Jim just kept plugging away at that job?

"Well, I tell you how it is, Jim," I said.
looking up at him-he was one of those husky, lazy-moving six-footers—"I don't see any chance in the office, but I understand they can use another good, strong man in one of the loading gangs."

I thought that would set to Im and let me.

I thought that would set to Im and let me.

But I told him, and off he started hot-foot to find his foreman. I sent word by an-other route to see that he got plenty to do. I forgot all about Jim until about three months later, when his name was handed months later, when his name was name-up to me for a new place and a raise in pay, it seemed that he had sort of abolished his job. After he had been rolling barrels a while, and the sport had ground down one of his shoulders a couple of inches farther than the other, he got to scheming around for a way to make the work easier, and he hit on an idea for a sort of overhead rail-road system, by which the barrels could be swung out of the storerooms and run right along into the cars, and two or three me do the work of a gang. It was just as I thought. Jim was lazy, but he had put the house in the way of saving so much money that I couldn't fire him. So I raised his sal-ary, and made him an assistant timekeeper and checker. Jim kept at this for three or four months, until his feet began to hurt him. I guess, and then he was out of a job again. It seems he had heard something about a new machine for registering the men, that did away with most of the time-keepers except the fellows who watched the machines, and he kept after the superin-

tendent until he got him to put them in. Of course, he claimed a raise again for effecting such a saving, and we just had to allow it. I was beginning to take an interest in Jim. so I brought him up into the office and set him to copying circular letters. We used to send out a raft of them to the trade. That and began nosing around again. The first the new typewriting machine on me, and he kept them pounding away until they had made me give them a trial. Then it was all up with Mister Jim's job again. I raised his graduate course. But habits of thought sin't the only thing a fellow picks up at salary without his asking for it this time and put him out on the road to introduce a

that job?"
"Yes, sir," he answered, quick as lighting, me between trips, until I finally took him off
the road and told him to go ahead and try
it in a small way.

looking up at him—he was one of those husky, lazy-moving six-footers—"I don't see any chance in the office, but I understand they can use another good, strong man in one of the loading gangs."

I thought that would settle Jim and let me out, for it's no joke lugging beef, or rolling barrels and tierces a hundrel yards or so to the cars. But Jim came right back at me with, "Done, Who'll I report to."

That sporty way of answering, as if he were closing a bet, made me surer than ever that he was not cut out for a butcher. If it I told him, and off he started hot-foot

Graham's Extract started out by being something that you could make beef-tea out of-that was all. But before Jim had been fooling with it a month he had got his girl to think up a hundred different ways in which it could be used, and had adver-tised them all. It seemed there was nothing you could cook that didn't need a dash of it. He kept me between a chill and a sweat all the time. Sometimes, but not often, I just had to grin at his foolishness. I remember one picture he got out showing sixteen cows, or thereabouts, standing between something that looked like a letter-press, and telling how every und or so of Graham's Extract co the juice squeezed from a herd of steers.

If an explorer started for the North Pole Jim would send him a case of extract, and then advertise that it was the great heatmaker for cold climates; and if fellow started across Africa he sent him a case, too, and advertised what a bully drink

He broke out in a new place every day, and every time he broke out it cost the house money. Finally, I made up my mind to swallow the loss, and Mister Jim was just about to loss blacks. just about to lose his job, when the orders for Extract began to look up, and he got a reprieve. Then he began to make expenses and he got a pardon; and finally a rush came that left him high and dry in a per-

manent place.

That was where I caught the connection

That was where education and business. send out a rait of them to the trade. And was just before the general adoption of typewriters, when they were still in the experimental stage. But Jim hadn't been in the office plugging away at the letters for a they are the faster they find reasons for the office plugging away at the letters for a getting their salaries raised. The fellow who seems the letters for a getting their salaries raised. The fellow who hasn't had the training may be just as smart, but he's apt to paw the air when

ain't the only thing a fellow picks up at

college.

I see you've been elected president of your class. I'm giad the boys aren't down on you, but while the most popular man in his class isn't always a failure in husiness, being popular takes up a heap of time. I noticed, too, when you were home Easter, that you were running to sporty clothes and cigarettes. There's nothing criminal ter, that you were running to sporty clothes and cigarettes. There's nothing criminal either, but I don't hire sporty clerks at at all, and the only part of the premises on which cigarette amoking is allowed is the fertilizer factory.

I simply mention this in passing I have every confidence in your ultimate good sense, and I guess you'll see the point without my elaborating with a meat army reasons for thinking that you've got college enough for the present.

YOUR AFFECTIONATE FATHER.

CIENTIST Declares That at Any Moment a Glacier of Ice and Snow May Sweep Over the Whole Face of the Earth.



WRITTEN FOR THE SUNDAY REPUBLIC.

Leon Lewis, in a startling work soon to be published under the title of "The Great Glacial Deluge and Its Impending Recurrence," makes the uncomfortable prediction the whole human race-with all the miraculous accomplishments of ages of civilization-with all its cities, towns and counfries-with all its learning and its deeds-is oon to be entirely swept into nothing. The agency which, according to Mr.

Lewis, is to tear down all that man nas outlded-and even man himself-is ICE. At any moment, be declares, a universa glacial flood may come sweeping up from the South Pole, destroying all before it, and so changing the face of the earth and the world's climate that all life shall be frozen up, and the only thing left shall be debris which, in centuries to come, shall be dug down to and unearthed by a new generaof beings, and placed in 'exhibits" of a past age-PERHAPS.

Mr. Lewis is a scientist of note, and he upports his startling statements by many itations of seeming proofs; but Humanity may find solace in the knowledge that past predictions of universal disaster-also suported by seeming proofs have failed, and that, anyhow, it is less terrible to be frozen han to be burned. Here are some of the main points advanced by Mr. Lewis:

## THE GREAT ANTARCTIC CAP AND

"The trouble begins," says Mr. Lewis, "at he extreme southern end of our globe The cold there is very excessive, as has been made plain by Mr. Borchgrevink and our other explorers. The snowfall there is almost continuous. Captain Ross tells us it having snowed twenty-eight days out of the thirty he was cruising along the great ice wall presented by the edge of this so called continent."

This account is confirmed by Commodor Wilkes of the United States Exploring Expedition, from whose reports it is easy to figure that the total snowfall thereabouts mounts to fifty-seven miles in ten thousand years.

There are no rains or thaws at the South Pole, so that all the snow is converted into ice under pressure, and the whole mass thickens and widens constantly, despite the losses to which it is subjected by the breakng off of the immense tabular icebergs which have presented themselves to the noice of Lord Kelvin and all other navigators in those regions. The waters of the surrounding seas are below the freezing point, s was first noted by the famous circumnavigator Captain Cook, and hence there is a constant accretion from this source to the rast bulk resulting from the unwonted

And now, what are the consequences of this state of things? Why, during many thousands of years the so-called "Antarctic Continent," or "ice-cap," which is simply a nuge mountain of ice, has been getting bigger and bigger, until it is now as large as North America, or one hundred and fifty times as large as the State of New York, and is estimated to possess a surface of 8,000,000 square miles. Doctor Croll ("Climate and Time") and H. B. Norton (Popular Science Monthly, October, 1879) speak of it as being 2,800 or 2,000 miles in diameter.

nowfall.

loose ice fills the whole space between Australia, Montevideo and the Cape of Good Hope, ranging northward from the pole brough almost fifty degrees of latitude and upon the whole circuit of the earth. Its thickness at the edge may be put at two miles. At Robertson Bay, Balleny Island, for instance, Mr. Borchgrevink (Strand Magazine for October, 1900) found the ice wall 12,000 feet high and so steep that there was no possibility of reaching the interior. which no man has ever seen or will see, and where there is neither animal not vegetable life of any description.

From a thickness of two or three miles at its edges, the slope of this ice continent asdually to the center at the pole where, it is estimated by Doctor Croll and many others, the ice is at least twelve miles thick, and is more like fifteen or twenty. The total bulk of this great accumulation, therefore, cannot be less than fifty million cubic miles of ice. fifty million cubic miles of ice.

And now a word as to what this great

mass of ice has been doing.

During the whole period of its growth, say 25,900 years, or ever since the latest of these recurrent floods, this vast ice continent has been drawing the ocean from the Northern Hemisphere across the Equator into the Southern. This movement, says Mr. Lewis. accounts for the present situation of affairs—the land in the Northern Hemisphere and the Southern Hemisphere and the draining of the Northern.
This movement of the waters southward-

their migration, as he calls it-has kept pace perfectly with the growth of the ice cap, and the consequence is that three-fifths of the waters of the globe have been drawn almost a mile to the southward of the earth's former center of gravity, and are held in this precarious position by the gravi-tational "pull" of the ice continent—literally suspended almost a mile above our heads— in readiness to be let back upon our lowlying lands at any moment.

## THE BREAKING UP OF THE ICE CAP A CERTAINTY. As will be seen at a glance, our situation as residents of the Northern Hemisphere is

not merely precarious—it is one of the most perilous that can ever manace us. All there is between us and destruc-tion, says Mr. Lewis, is the cohesion of those fifty million cubic miles of Just so long as the great ice cap at the

South Pole remains whole, just so long will things remain as they now are, with the present distribution of land and sea.

But the instant the ice cap is broken up, that instant we are lost. that instant we are lost.

The disruption of the ice cap will cause the "pull" of gravitation to be instantly

transferred to the northern half of our globe, and the fragments of the ice cap, with all the water which has been drawn around it, will enter immediately upon a wild rush for the North Pole via the At The present order of things, it thus appears, can be perpetuated only during the time the ice cap retains its cohesion. But how uncertain this time must be! As well count upon the perpetuation of an icicle hanging from your roof! The cohesion of the ice cap cannot possibly be prolonged beyond a certain point.

beyond a certain point.
There is sure to come a time soon when the cohesion of this great ice mountain will be subjected to a strain it cannot possibly resist. No one can say how soon the event will take place, but it is just as sure to RUSH OF THE GREAT GLACIAL DEL-UGE TOWARD THE NORTH. And when the ice cap breaks up, what

Why, the whole mass of water and ice

thus gathered at the South Pole-the great giacial deluge, as Mr. Lewis calls it-starts northward, centering upon the twentieth meridian of west longitude, which pases in midatlantic. The bulk of the deluge, ice and water, exceeds a hundred million cubic miles. Imagine what a vacuum it makes it the region which has so long been its cra dle! Into this vacuum, however, rushes th Indian Ocean from the east and the Pacifi from the west, both being drawn tremen-dously into the cataclysm by its violence. It can readily be guessed how rapidly the great gladal deluge will take its way north-

less than three-quarters of a mile.

But why does it come up the Atlantic?

Because the gravitational "pull" of the world has hold of it; because the line of disruption is midway between the Cape of Good Hope and Cape Horn, and for forty other reasons given by Mr. Lewis, but into

which we need not enter.
In coming away from the South Pole the
hige leebergs of the flood tear tremendous
furrows in the floor of the ocean, and these
furrows have been discovered by recent exlorers as is recorded in Appleton's Annua for 1899. The icebergs make a similar excavation between Mentevideo and Tristan da Cunha, after they have been whirled against the southeast coast of South Amer-ica by the diurnal rotation of the earth on its axis, and in one place they have left a

Grinding along the coast of Brazil, the deluge crosses the Equator, reaching the coast of Africa at Cape Verde. Here it is coast of Africa at Cape veroe. Here it is subjected to such a "pull" from the East ern Hemisphere that it hugs the coasts of Northwest Africa and Western Europe, overwhelming Great Britain, Jutland, the Netherlands, Southeastern Sweden, Finland and Northwestern Russia, and de stroying all life and all the works of human hands throughout those regions.

THE HALF TURN OF THE DELUGE AROUND THE NORTH POLE.

Rushing into the Arctic Basin between Iceland and Norway, and so on between Greenland and Spitzbergen, the Great Glacial Deluge enters upon its wonderful half-turn around the North Pole, which will be best comprehended from the man. Its less est comprehended from the map. Its icebergs, as much as they have been broken up during their wild flight northward, are still large enough to force the axial torrents of the flood to keep to their deep-sea basins. They do this everywhere, and this is why the continental shelves of the Atlantic fall away everywhere from shallow depths to a thousand or more fathoms.

The channels followed in the Arctic Ocean are between two and four miles deep, as has been shown by Explorer Nansen and others. keeping to its deep-sea channels, therefore, but at the same time hugging the northern shores of Europe and Asia, the Great Glacial Deluge reaches the opposite side of the basin at the New Siberian Islands, where to begins piling up its lee and rising upon itself in a whirl which defies description. The Arctic Ocean, being substantially a closed sea here, with only the small opening of Behring Strait, which is soon choked by the ice, the waters and icebergs of the flood are forced to make a half-turn.

lines. The presence of this food has b known for two generations, or ever six the days of Doctor Edward Hitchcock, Do the days of Doctor Edward Hitchcock, Doctor Charles T. Jackson, Sir James Hall and hundreds of other great scientists, but they have all been at a loss to explain this presence, for the reason that it never occurred to them—nor to anybody before Mr. Leon Lewis—to go to the South Pole for their cause, power and motion.

Off the Atlantic States, as also off Eastern Africa and Eastern Asia, as will be seen by the map, the deluge is converted.

seen by the map, the deluge is co into a great southwest drift, partly sequence of the earth's rotation. movements are succeeded by many others of a secondary character, especially during the melting of the ice sheet. It is enough to say that the whole Northern Hemisphere is buried beneath hundreds of fathous of water and ice. Great Britain and the oth-countries of Northern Europe are covery by the deluge twice, both in coming north says Mr. Lewis, Great Britain is morely a skeleton of what it was when it was joined —as Sir Charles Lyell, Reclus and others have shown—to Spain and Portugal on the south, the Continent on the cast and Nor-way and Greenland northward.

WHOLE FACE OF THE WORLD 20 PROOF OF THIS DELUGE. Turning now our attention to the face of the earth, remarks Mr. Lewis, we find it giving evidence everywhere that it has been

worn and rent by furious floods. Sir Henry Howorth, in his "Glacial Nightmare," has placed this point beyond dispute. The habitable globe is covered everywhere by a vast washing and deposit known as the drift, which is indisputably, according to Mr. Lewis, the work of the

great glacial deluge.

We find also that the northern parts of We find also that the northern parkers we find also that the northern parkers and Asia have been covered repeatedly by nearly a mile heen covered repeatedly by nearly a mile heen covered repeatedly by Mr. been covered repeatedly by nearly of ice, and this is also ascribed it. Lewis to the Great Glacial Deluge. serts that the "ice age" or "giacial" is wholly the work of the deluge of wh

is wholly the work of the deluge of which no is the discoverer.

Geologists tell us that the northern parts of North America have been under water, or that the ocean formerly stood higher than at present, fifty feet higher in Connecticut, 100 feet higher in Maine, 500 in Newfound-land, 1,000 at the south end of Greenland, 2,000 at Disko Island, and three-quarters of mile at the North Pole.

a mile at the North Pole.

They explain these ancient sea margins and ancient sea beaches by saying that the centinent has moved up and down repeatedly, leaving different marks every time, but they give no reason for these crust movements, and can eve none. ments, and can give none.

Mr. Lewis accordingly rejects them in toto, and says that all the facts and appearances of the Northern Hemisphere are fully covered by the Great Glacial Deluge, and that they have no other cause than this flood.

The outcome of his contentions, even upon

these brief showings, will certainly be a great deal of inquiry and discussion.

Given the fact that all geologists agree in saying that there has been three-quarin saying that there has been three-quar-ters of a mile more of water at the North Pole than now; given also another conceded fact, namely, that the ice and water now accumulated at the South Pole is amply suf-ficient to raise the level of the Arctic Ocean by the ice, the waters and leebergs of the flood are forced to make a half-turn upon themselves.

While they are doing this the Arctic Basin becomes filled to overflowing.

The return of the deluge southward is made chiefly upon northwest and southwest way northward.